## Malaria season keeps medical authorities on the alert

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CAMP LEATHERNECK, Afghanistan (May 23, 2011) — Silent, lethal and commonly underestimated, malaria is one of the deadliest diseases causing sickness and death around the world, hospitalizing nearly 500,000,000 people and killing between 1.5 to 2.7 million people each year, according to the World Health Organization.

According to the U.S. Army Medical Department, during the American Civil War malaria accounted for 1,316,000 episodes of illness and 10,000 deaths. The British, French and German armies were immobilized for three years by malaria nearly one hundred years later during World War I in Macedonia. Later on during the same century 60,000 U.S. troops died in Africa and the South Pacific during WW II.

Marines, soldiers, sailors and airmen currently deployed to Camp Leatherneck, Afghanistan, in support of International Security Assistance Force operations count on a group of service members dedicated to investigating and controlling the population of the Anopheles mosquito. This particular genus of mosquito is responsible for transmitting malaria and the Public Health and Preventive Medicine Detachment, Alpha Surgical Company, 2nd Marine Logistics Group (Forward)'s goal is to prevent the disease from spreading to troops.

"We basically look for vectors that cause diseases, especially the malaria mosquitoes," explained Lt. Joseph W. Diclaro II, from Beckley, Wyo., a medical entomologist who holds a doctorate in medical entomology and serves with the medical detachment. "The problem with this disease is that it needs the insect to pass on to humans.

"When the mosquito bites a person who has that [malaria, the disease is passed to] the mosquito. When that mosquito feeds off someone else that person contracts malaria," Diclaro said. "To mitigate this we survey for larvae and adult mosquitoes by getting water samples and placing traps. That way we can find the areas where they are. Based on that information we can treat the area and prevent the mosquito population from growing."

The team places mosquito traps throughout the base every night. In the morning, they are collected and brought to the laboratory for observation. During the process, they identify which species are in the area and collect data for future reference.

"I do daily surveillance of the mosquito traps we set up, we also check for larvae in the water. We look for the perfect habitat for insects like mosquitoes," said Seaman Charles A. Hill, from Albuquerque, N.M., a preventive medicine technician with 2nd MLG (Fwd.). "Once we pick up the traps, we bring them to the laboratory where we proceed to analyze the insects.

"We put the mosquitoes under the microscope to identify what kind of species they are," Hill said. "One thing people don't really understand is there are several species of mosquitoes, but not all of them carry malaria."

Service members currently operating in Afghanistan are at high risk for contracting malaria. The disease is known to spread at high rates between April and November, but the risk of contracting it remains throughout the year. U.S. forces count on up-to date information about the disease as well as military medical personnel who provide preventive assistance. If there is a case they are capable of providing the appropriate treatment for the patient.

"The best way to combat malaria is by taking the prophylaxis tablets and wearing the [Flame Resistant Organizational Gear, which is treated with insect repellant]," explained Lt. Teshara E. Felder, from Kansas City, Mo., an environmental health officer with 2nd MLG (Fwd.). "We need the troops to understand it is very important they follow the basic guidelines to prevent contracting malaria.

"If we have a malaria case we provide assistance by investigating exactly what happened and then we try to take the necessary measures to prevent it from happening again," Felder explained. "We also send the information out to units so they can teach the troops about the problem."

Malaria continues to be a serious risk for troops in Afghanistan but sailors with preventive health will carry on their legacy to combat this tiny enemy tirelessly to protect those forward deployed.